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EXAMINER

PATEL, HARESH N

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2154

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Please find below and/or attached an Office communication concerning this application or proceeding.



### DETAILED ACTION

1. Claims 1-16 are subject to examination.

#### *Response to Arguments*

2. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

#### *Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster et al., 6,446,127, 3Com Corporation (Hereinafter Schuster-3Com) in view of Bowman-Amuah, 2003/0058277, Accenture (Hereinafter Bowman-Amuah-Accenture).

5. As per claim 1, Schuster-3Com discloses **a system** (system that provides user access to voice and data network services, col., 3, lines 53 – 59, incorporating CLASS and PBX features into a data network telephony system that uses a data network such as the Internet, col., 3, lines 38 - 40) **comprising:**

**a software dispatcher** (usage of function that support registering information col., 17, lines 1 – 11, processing the call by referencing a registration database and directing the call to the

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voice communication device, step 1506 of figure 15) **in a telephony Internet server** (usage of Internet Telephony Gateway, col., 6, lines 51 – 60, col., 10, lines 26 - 34) **coupled between a packet network** (IP network, Ethernet LAN, VoIP on Internet, col., 6, lines 45 – 54) and a **private branch exchange** (PSTN and PSTN Central Office, col., 6, lines 48 – 61, usage of PBX, col., 3, lines 38 – 40), **the software dispatcher configured to dynamically** (dynamic support of phone features for a user, col., 4, lines 16 – 21) **add software system application features** (available features for the user, i.e., Camp-on queuing, Call forwarding, col., 2, lines 25 – 44, phone forwarding, col., 4, lines 16 – 22, transfer of user attributes, col., 4, lines 32 – 36, preferences of the user for the phone operation, col., 4, lines 9 – 11, functionality available to the user, col., 7, lines 29 – 31, that is similar to the features of the specification of this application under prosecution) **associated with and handle information** (usage of voice and data network services for handling calls, col., 3, lines 53 – 59) **between said private branch exchange** (Internet Telephony Gateway, col., 6, lines 51 – 60, col., 10, lines 26 - 34) **and said packet network** (PSTN and PSTN Central Office, col., 6, lines 48 – 61, usage of PBX, col., 3, lines 38 – 40) **and adapted to maintain** (usage of registration database maintained by the registration server, col., 4, lines 63 – 65) **a list of dispatcher clients** (usage of registration database for user attributes associated with users of respective communication device, col., 24, lines 8 – 17, registration of the owner/user information with the information of the data network telephone in a database, col., 3, lines 60 -67); and

**a plurality of dispatcher clients** (users of respective communication device, col., 24, lines 8 – 17, owner/user of the data network telephones, col., 3, lines 60 -67); **adapted to identify** (usage user identification information, col., 3, lines 61 – 64, col., 7, lines 13 – 18, col.,

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11, lines 32 - 35) **to said software dispatcher particular messages** (messages containing session information, col., 12, lines 59 – 66, multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, that is similar to the messages of the specification of this application under prosecution) **for receiving** (maintaining telephony communication, col., 12, lines 26 – 30, col., 22, lines 34 - 44);

**said software dispatcher adapted to send messages** (messages for session information sent back and forth, col., 12, lines 59 – 66) **to said plurality of dispatcher clients** (users of respective communication device, col., 24, lines 8 – 17, owner/user of the data network telephones, col., 3, lines 60 -67).

However, Schuster-3Com does not specifically mention about balance system workload and sending messages synchronously and asynchronously.

Bowman-Amuah-Accenture discloses well-known concepts of using **balance system workload** (paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126) and **sending messages synchronously and asynchronously** (voice applications / telephone call, paragraphs 1240, 755, 1001, 1012, 1013).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com with the teachings of Bowman-Amuah-Accenture in order to facilitate usage of balance system workload because it would enhance handling the workload and improve overall system performance. The concept of balancing the workload would help distribute the workload among the entities that support processing the

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workload. Distributing the workload based on determination of the available entity among the entities would utilize the available entity for faster processing of the workload. Sending messages synchronously and asynchronously would support improving performance of the system by recovering information of the lost messages in the system (please see paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126, 1240, 755, 1001, 1012, 1013).

Note: The specification of this application under prosecution at lines 2-5 of page 11 states, "The invention described in the above detailed description is not intended to be limited to the specific form set forth herein, but is intended to cover such alternatives, modifications and equivalents as can reasonably be included within the spirit and scope of the appended claims.

6. As per claim 2, Schuster-3Com and Bowman-Amuah-Accenture disclose the claimed limitations rejected under claim 1. Schuster-3Com also discloses **said software dispatcher is adapted to save asynchronous messages for later transmission in a logical message queues** (usage of queuing until the callee can accept, col., 2, lines 32 – 35, col., 1, lines 41 – 43, col., 9, lines 45 – 40, usage of asynchronous transfer mode link, col., 8, lines 5-6).

7. As per claim 3, Schuster-3Com and Bowman-Amuah-Accenture disclose the claimed limitations rejected under claims 1 and 2. Schuster-3Com also discloses **messages are dispatched to identified ones of said plurality of dispatcher clients** (users that are using their respective communication device, col., 24, lines 8 – 17, owner/users utilizing the data network telephones, col., 3, lines 60 -67).

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However, Schuster-3Com does not specifically mention about **dispatching in order of dispatcher client priority**.

Bowman-Amuah-Accenture discloses well-known concept of **dispatching in order of dispatcher client priority** (usage of priority delivery, paragraph 941, priority message delivery, paragraph 1150, usage of utilization based load balancing, 4118 and 4126).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com with the teachings of Bowman-Amuah-Accenture in order to facilitate usage of dispatching in order of dispatcher client priority because it would enhance handling the messages by an entity having high priority and improve overall system performance. The concept of assigning the messages based on the priority would help distribute the messages to the entity that support processing the messages faster than other entities (please see, paragraphs 941, 1150, 4118 and 4126).

8. As per claim 4, Schuster-3Com and Bowman-Amuah-Accenture disclose the claimed limitations rejected under claims 1 and 2. Schuster-3Com also discloses **said messages being sent as flexible message parameters comprising name, type, and value fields** (messages containing payload type field, source number, destination number, payload with each of the data types, and/or header indicating type of data, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, multiple channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the flexible message parameters of the specification of this application under prosecution).

9. Claims 5-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster-3Com in view of Bowman-Amuah-Accenture and Ben-Shachar et al., 6,209,018, Sun Microsystems, Inc (Hereinafter Ben-Shachar-Sun).

10. As per claim 5, Schuster-3Com and Bowman-Amuah-Accenture disclose the claimed limitations rejected under claims 1, 2 and 4. Schuster-3Com also discloses **said value field further comprises another flexible parameter** (messages containing payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, multiple channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the flexible parameter of the specification of this application under prosecution).

However, Schuster-3Com and Bowman-Amuah-Accenture do not specifically mention about usage of managing a pool of message threads.

Ben-Shachar-Sun discloses the concept of **managing a pool of message threads** (usage of load balancing manager for balancing workloads among workers in a worker pool, col., 3, lines 32 – 49, col., 30, lines 5 – 8, with multi-threads handling messages, col., 29, lines 34 – 47, col., 8, lines 34 - 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com and Bowman-Amuah-Accenture with the teachings of Ben-Shachar-Sun in order to facilitate usage of managing a pool of message threads because it would enhance handling the messages by the entities utilizing multi-threads for



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improving the overall system performance. The concept of balancing the workload using the multi-threads would help distribute the workload among the threads supporting the entities for processing the workload (please see, col., 3, lines 32 – 49, col., 30, lines 5 – 8, col., 29, lines 34 – 47, col., 8, lines 34 – 43).

11. As per claim 6, Schuster-3Com and Bowman-Amuah-Accenture disclose the claimed limitations rejected under claim 1. Schuster-3Com also discloses **each of said messages is identified to said software dispatcher by a message number** (usage of multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the message number of the specification of this application under prosecution).

However, Schuster-3Com and Bowman-Amuah-Accenture do not specifically mention about usage of list of unique integers identifying dispatcher clients to receive messages.

Ben-Shachar-Sun discloses the concept of **list of unique integers identifying dispatcher clients to receive messages** (usage of worker handle, col., 8, lines 34 – 38, usage of worker statistics, block 452 of figure 28, worker registration of figure 24, usage of registry 456, figure 28, load balancing manager for balancing workloads among workers in a worker pool, col., 3, lines 32 – 49, col., 30, lines 5 – 8, with multi-threads handling messages, col., 29, lines 34 – 47, col., 8, lines 34 - 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com and Bowman-Amuah-Accenture with the teachings of Ben-Shachar-Sun in order to facilitate usage of list of unique integers identifying dispatcher clients to receive messages because it would enhance handling the messages by the entities utilizing multi-threads with respective identification in order to improve the overall system performance. The handles of the multi-threads being unique integers would help identify a thread among the multi-threads that would be used for processing the messages. The concept of balancing the workload using the multi-threads would help distribute the workload among the threads supporting the entities for processing the workload (please see, col., 8, lines 34 – 38, col., 3, lines 32 – 49, col., 30, lines 5 – 8, col., 29, lines 34 – 47, col., 8, lines 34 - 43).

12. As per claim 7, Schuster-3Com discloses **a method** (providing user access to voice and data network services, col., 3, lines 53 – 59, incorporating CLASS and PBX features into a data network telephony system that uses a data network such as the Internet, col., 3, lines 38 - 40) **comprising:**

**maintaining a list of dispatcher clients** (registration database for user attributes associated with users of respective communication device, col., 24, lines 8 – 17, registration of the owner/user information with the information of the data network telephone in a database, col., 3, lines 60 -67) **at a software dispatcher** (usage of function that support registering information col., 17, lines 1 – 11, processing the call by referencing a registration database and directing the call to the voice communication device, step 1506 of figure 15), **said software dispatcher configured to dynamically** (dynamic support of phone features for a user, col., 4,

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lines 16 – 21) **add software features to software subsystems** (available features for the user, i.e., Camp-on queuing, Call forwarding, col., 2, lines 25 – 44, phone forwarding, col., 4, lines 16 – 22, transfer of user attributes, col., 4, lines 32 – 36, preferences of the user for the phone operation, col., 4, lines 9 – 11, usage of Internet Telephony Gateway, col., 6, lines 51 – 60, col., 10, lines 26 – 34, functionality available to the user, col., 7, lines 29 – 31, that is similar to the features of the specification of this application under prosecution) **between a packet network** (IP network, Ethernet LAN, VoIP on Internet, col., 6, lines 45 – 54) and **a private branch exchange** (PSTN and PSTN Central Office, col., 6, lines 48 – 61, usage of PBX, col., 3, lines 38 – 40), **said dispatcher clients comprising software subsystems** (software handling respective communication device of the users as per the user attributes associated, col., 24, lines 8 – 17, col., 3, lines 60 -67) **said list comprising identifying particular messages** (usage of multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the messages of the specification of this application under prosecution), **said dispatcher clients registering** (usage of registration database for user attributes associated with users of respective communication device, col., 24, lines 8 – 17, registration of the owner/user information with the information of the data network telephone in a database, col., 3, lines 60 -67) **to receive predetermined messages with said dispatcher** (messages containing session information, col., 12, lines 59 – 66, voice versus data network services information, col., 3, lines 53 – 59).

**dispatching messages to said dispatcher clients** (messages for session information sent back and forth, col., 12, lines 59 – 66, users of respective communication device, col., 24, lines 8 – 17, owner/user of the data network telephones, col., 3, lines 60 -67).

However, Schuster-3Com does not specifically mention about balance workload and dispatching messages synchronously and asynchronously.

Bowman-Amuah-Accenture discloses well-known concepts of using **balance workload** (paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126) and **dispatching messages synchronously and asynchronously** (voice applications / telephone call, paragraphs 1240, 755, 1001, 1012, 1013).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com with the teachings of Bowman-Amuah-Accenture in order to facilitate usage of balance system workload because it would enhance handling the workload and improve overall system performance. The concept of balancing the workload would help distribute the workload among the entities that support processing the workload. Distributing the workload based on determination of the available entity among the entities would utilize the available entity for faster processing of the workload. Dispatching messages synchronously and asynchronously would support improving performance of the system by recovering information of the lost messages in the system (please see paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126, 1240, 755, 1001, 1012, 1013).

However, Schuster-3Com and Bowman-Amuah-Accenture do not specifically mention about usage of list of unique integers identifying dispatcher clients to receive messages.

Ben-Shachar-Sun discloses the concept of **list of unique integers identifying dispatcher clients to receive messages** (usage of worker handle, col., 8, lines 34 – 38, usage of worker statistics, block 452 of figure 28, worker registration of figure 24, usage of registry 456, figure 28, load balancing manager for balancing workloads among workers in a worker pool, col., 3, lines 32 – 49, col., 30, lines 5 – 8, with multi-threads handling messages, col., 29, lines 34 – 47, col., 8, lines 34 - 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com and Bowman-Amuah-Accenture with the teachings of Ben-Shachar-Sun in order to facilitate usage of list of unique integers identifying dispatcher clients to receive messages because it would enhance handling the messages by the entities utilizing multi-threads with respective identification in order to improve the overall system performance. The handles of the multi-threads being unique integers would help identify a thread among the multi-threads that would be used for processing the messages. The concept of balancing the workload using the multi-threads would help distribute the workload among the threads supporting the entities for processing the workload (please see, col., 8, lines 34 – 38, col., 3, lines 32 – 49, col., 30, lines 5 – 8, col., 29, lines 34 – 47, col., 8, lines 34 - 43).

13. As per claim 8, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claim 7. Schuster-3Com also discloses **saving asynchronous messages for later transmission in a logical message queues** (usage of queuing until the callee can accept, col., 2, lines 32 – 35, col., 1, lines 41 – 43, col., 9, lines 45 – 40, usage of asynchronous transfer mode link, col., 8, lines 5-6).

14. As per claim 9, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claims 7 and 8.

Bowman-Amuah-Accenture also discloses well-known concept of **dispatching in order of dispatcher client priority** (usage of priority delivery, paragraph 941, priority message delivery, paragraph 1150, usage of utilization based load balancing, 4118 and 4126).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun in order to facilitate usage of dispatching in order of dispatcher client priority because it would enhance handling the messages by an entity having high priority and improve overall system performance. The concept of assigning the messages based on the priority would help distribute the messages to the entity that support processing the messages faster than other entities (please see, paragraphs 941, 1150, 4118 and 4126).

15. As per claim 10, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claims 7-9. Schuster-3Com also discloses **said dispatching messages as flexible message parameters comprising name, type, and value fields** (messages containing payload type field, source number, destination number, payload with each of the data types, and/or header indicating type of data, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, multiple channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the flexible message parameters of

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the specification of this application under prosecution), wherein **only dispatcher clients** (registered users only in the registration database for user attributes associated with users of respective communication device, col., 24, lines 8 – 17, col., 3, lines 60 -67) **identified to receive particular messages** (multiple messages, col., 23, lines 3 – 24) **is aware of both content and destination of respective said particular messages** (multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the messages of the specification of this application under prosecution).

16. As per claim 11, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claim 7. Ben-Shachar-Sun also discloses **managing a pool of message threads** (usage of load balancing manager for balancing workloads among workers in a worker pool, col., 3, lines 32 – 49, col., 30, lines 5 – 8, with multi-threads handling messages, col., 29, lines 34 – 47, col., 8, lines 34 - 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun in order to facilitate usage of managing a pool of message threads because it would enhance handling the messages by the entities utilizing multi-threads for improving the overall system performance. The concept of balancing the workload using the multi-threads would help distribute the workload among the threads supporting the entities for processing the workload

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(please see, col., 3, lines 32 – 49, col., 30, lines 5 – 8, col., 29, lines 34 – 47, col., 8, lines 34 – 43).

17. As per claim 12, Schuster-3Com discloses a **telecommunication system** (incorporating CLASS and PBX features into a data network telephony system that uses a data network such as the Internet, col., 3, lines 38 - 40) **comprising:**

**a private branch exchange** (PSTN and PSTN Central Office, col., 6, lines 48 – 61, usage of PBX, col., 3, lines 38 – 40),

**a server** (usage of Internet Telephony Gateway, col., 6, lines 51 – 60, col., 10, lines 26 – 34, functionality available to the user, col., 7, lines 29 – 31) **coupled** (IP network, Ethernet LAN, VoIP on Internet, col., 6, lines 45 – 54) **to the private branch exchange** (PSTN and PSTN Central Office, col., 6, lines 48 – 61, usage of PBX, col., 3, lines 38 – 40), **the server adapted to interface the private branch exchange to a packet network** (IP network, Ethernet LAN, VoIP on Internet, col., 6, lines 45 – 54);

**a software dispatcher in said server** (usage of function that support registering information col., 17, lines 1 – 11, processing the call by referencing a registration database and directing the call to the voice communication device, step 1506 of figure 15), **adapted to receive and dispatch message** (usage of multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the message of the specification of this application under prosecution)



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**for dynamically** (dynamic support of phone features for a user, col., 4, lines 16 – 21) **adding software features** (available features for the user, i.e., Camp-on queuing, Call forwarding, col., 2, lines 25 – 44, phone forwarding, col., 4, lines 16 – 22, transfer of user attributes, col., 4, lines 32 – 36, preferences of the user for the phone operation, col., 4, lines 9 – 11, usage of Internet Telephony Gateway, col., 6, lines 51 – 60, col., 10, lines 26 – 34, functionality available to the user, col., 7, lines 29 – 31, that is similar to the features of the specification of this application under prosecution) **to software subsystem** (software handling respective communication device of the users / clients as per the associated user attributes, col., 24, lines 8 – 17, col., 3, lines 60 – 67),

**the dispatcher identifying and distributing the messages by identifier** (usage of multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44, that is similar to the message identifying of the specification of this application under prosecution), **and node** (communication device, col., 24, lines 8 – 17, network element for the telephone, col., 3, lines 60 – 67).

However, Schuster-3Com does not specifically mention about balance workload.

Bowman-Amuah-Accenture discloses well-known concepts of using **balance workload** (paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com with the teachings of Bowman-Amuah-

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Accenture in order to facilitate usage of balance system workload because it would enhance handling the workload and improve overall system performance. The concept of balancing the workload would help distribute the workload among the entities that support processing the workload. Distributing the workload based on determination of the available entity among the entities would utilize the available entity for faster processing of the workload. (please see paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126, 1240, 755, 1001, 1012, 1013).

However, Schuster-3Com and Bowman-Amuah-Accenture do not specifically mention about usage of unique integer for identifying.

Ben-Shachar-Sun discloses the concept of using **unique integer for identifying** (usage of worker handle, col., 8, lines 34 – 38, usage of worker statistics, block 452 of figure 28, worker registration of figure 24, usage of registry 456, figure 28, load balancing manager for balancing workloads among workers in a worker pool, col., 3, lines 32 – 49, col., 30, lines 5 – 8, with multi-threads handling messages, col., 29, lines 34 – 47, col., 8, lines 34 - 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com and Bowman-Amuah-Accenture with the teachings of Ben-Shachar-Sun in order to facilitate usage of list of unique integers identifying dispatcher clients to receive messages because it would enhance handling the messages by the entities utilizing multi-threads with respective identification in order to improve the overall system performance. The handles of the multi-threads being unique integers would help identify a thread among the multi-threads that would be used for processing the messages. The concept of balancing the workload using the multi-threads would help distribute the workload among the

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threads supporting the entities for processing the workload (please see, col., 8, lines 34 – 38, col., 3, lines 32 – 49, col., 30, lines 5 – 8, col., 29, lines 34 – 47, col., 8, lines 34 - 43).

18. As per claim 13, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claim 12. Ben-Shachar-Sun also discloses **said software subsystem** (software handling respective communication device of the users / clients as per the associated user attributes, col., 24, lines 8 – 17, col., 3, lines 60 -67) **provide said dispatcher with an identification of a message to be delivered** (type of message that is supported by the client/user software, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, a channel among multiple supported channels (RTP and UDP), expected packet among multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44), **and said dispatcher identifies a destination** (a registered user / client as per associated user attributes for a respective communication device, col., 24, lines 8 – 17, col., 3, lines 60 -67), **whereby said software subsystem is unaware** (dynamic support of the message information, col., 21, lines 1-2) **of respective identified destinations** (a plurality of registered users / clients as per associated user attributes for respective communication devices, other registered users /clients, col., 24, lines 8 – 17, col., 3, lines 60 -67).

19. As per claim 14, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claim 12. Ben-Shachar-Sun also discloses **said dispatcher maintains a list of registered receivers** (registration database for user attributes associated with plurality of users /clients of respective communication devices, col., 24, lines 8 –

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17, registration of the owner/user information with the information of the data network telephone in a database, col., 3, lines 60 -67) **and message numbers** (type of messages that is supported by the client/user software, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, a channel among multiple supported channels (RTP and UDP), expected packet among multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44), **each distributed message being identified** (sent message information, col., 21, lines 1-2) **to said dispatcher** (usage of function that support registering information col., 17, lines 1 – 11, processing the call by referencing a registration database and directing the call to the voice communication device, step 1506 of figure 15) **by one of said message numbers** (expected type of packet among supported multiple packets, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, a channel among multiple supported channels (RTP and UDP), col., 23, lines 3 – 24, col., 22, lines 34 – 44).

20. As per claim 15, Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun disclose the claimed limitations rejected under claim 12. Ben-Shachar-Sun also discloses **said software subsystem is adapted to register with said dispatcher** (usage of function that support registering information for the users/ clients for respective devices, col., 17, lines 1 – 11), **for receiving particular messages** (usage of multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24),

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**and the software dispatcher handles system workload** (calls and voice and/or data network services for handling calls, col., 3, lines 53 – 59).

However, Schuster-3Com does not specifically mention about balance system workload.

Bowman-Amuah-Accenture discloses well-known concepts of using **balance system workload** (paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun in order to facilitate usage of balance system workload because it would enhance handling the workload and improve overall system performance. The concept of balancing the workload would help distribute the workload among the entities that support processing the workload. Distributing the workload based on determination of the available entity among the entities would utilize the available entity for faster processing of the workload. (please see paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126, 1240, 755, 1001, 1012, 1013).

However, Schuster-3Com and Bowman-Amuah-Accenture do not specifically mention about maintaining a pool of message threads.

Ben-Shachar-Sun discloses the concept of **maintaining a pool of message threads** (usage of load balancing manager for balancing workloads among workers in a worker pool, col., 3, lines 32 – 49, col., 30, lines 5 – 8, with multi-threads handling messages, col., 29, lines 34 – 47, col., 8, lines 34 - 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun in order to facilitate usage of maintaining a pool of message threads because it would enhance handling the messages by the entities utilizing multi-threads for improving the overall system performance. The concept of balancing the workload using the multi-threads would help distribute the workload among the threads supporting the entities for processing the workload (please see, col., 3, lines 32 – 49, col., 30, lines 5 – 8, col., 29, lines 34 – 47, col., 8, lines 34 – 43).

21. As per claim 16, Schuster-3Com discloses **a system** (system that provides user access to voice and data network services, col., 3, lines 53 – 59, incorporating CLASS and PBX features into a data network telephony system that uses a data network such as the Internet, col., 3, lines 38 - 40) **comprising:**

**a software dispatcher configured** (usage of function that support registering information col., 17, lines 1 – 11, processing the call by referencing a registration database and directing the call to the voice communication device, step 1506 of figure 15, usage of Internet Telephony Gateway, col., 6, lines 51 – 60, col., 10, lines 26 - 34) **to dynamically** (dynamic support of phone features for a user, col., 4, lines 16 – 21) **add software system application features** (available features for the user, i.e., Camp-on queuing, Call forwarding, col., 2, lines 25 – 44, phone forwarding, col., 4, lines 16 – 22, transfer of user attributes, col., 4, lines 32 – 36, preferences of the user for the phone operation, col., 4, lines 9 – 11, functionality available to the user, col., 7, lines 29 – 31, that is similar to the features of the specification of this application

under prosecution) **to dispatcher clients** (usage of registration database for user attributes associated with users of respective communication device, col., 24, lines 8 – 17, registration of the owner/user information with the information of the data network telephone in a database, col., 3, lines 60 -67) **and manage workload** (calls and voice and/or data network services for handling calls, col., 3, lines 53 – 59) **between a packet network** (IP network, Ethernet LAN, VoIP on Internet, col., 6, lines 45 – 54) **and a private branch exchange** (PSTN and PSTN Central Office, col., 6, lines 48 – 61, usage of PBX, col., 3, lines 38 – 40), **the software dispatcher adapted to maintain** (usage of registration database maintained by the registration server, col., 4, lines 63 – 65) **a list of dispatcher clients** (usage of registration database for user attributes associated with users of respective communication device, col., 24, lines 8 – 17, registration of the owner/user information with the information of the data network telephone in a database, col., 3, lines 60 -67), **messages being selectively** (as per type of message that is supported by the client/user software, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, a channel among multiple supported channels (RTP and UDP), , col., 23, lines 3 – 24, col., 22, lines 34 – 44) **sent between the dispatcher clients** (registered users / clients as per associated user attributes for a respective communication devices, col., 24, lines 8 – 17, col., 3, lines 60 -67), **the dispatcher clients including software application** (software supporting user / client, col., 24, lines 8 – 17, col., 3, lines 60 –67);

**a plurality of dispatcher clients** (users of respective communication device, col., 24, lines 8 – 17, owner/user of the data network telephones, col., 3, lines 60 -67); **adapted to identify** (usage user identification information, col., 3, lines 61 – 64, col., 7, lines 13 – 18, col., 11, lines 32 - 35) **to said software dispatcher particular messages** (messages containing

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session information, col., 12, lines 59 – 66, multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44) **for receiving** (maintaining telephony communication, col., 12, lines 26 – 30) **from other dispatcher clients** (other registered users /clients, col., 24, lines 8 – 17, col., 3, lines 60 – 67), **wherein said other dispatcher clients identify** (available features for the user, i.e., Camp-on queuing, Call forwarding, col., 2, lines 25 – 44, phone forwarding, col., 4, lines 16 – 22, transfer of user attributes, col., 4, lines 32 – 36, preferences of the user for the phone operation, col., 4, lines 9 – 11, functionality available to the user, col., 7, lines 29 – 31) **messages** (messages containing session information, col., 12, lines 59 – 66, multiple messages containing type of the message, payload type field, payload, data types, data coded as G.711 with a payload type code of 0, PID data with a payload type code of 190, type of channels (RTP and UDP) information, multiple data types with a data channel with multiple different types of packets, col., 23, lines 3 – 24, col., 22, lines 34 – 44) **for sending to said software dispatcher** (communicating to the function that support registering information col., 17, lines 1 – 11, processing the call by referencing a registration database and directing the call to the voice communication device, step 1506 of figure 15),

**said software dispatcher adapted to send messages** (messages for session information sent back and forth, col., 12, lines 59 – 66) **to identified receiving ones of said plurality of dispatcher clients** (users of respective communication device, col., 24, lines 8 – 17, owner/user of the data network telephones, col., 3, lines 60 – 67).



However, Schuster-3Com does not specifically mention about balance workload and sending messages synchronously and asynchronously.

Bowman-Amuah-Accenture discloses well-known concepts of using **balance system workload** (paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126) and **sending messages synchronously and asynchronously** (voice applications / telephone call, paragraphs 1240, 755, 1001, 1012, 1013).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com with the teachings of Bowman-Amuah-Accenture in order to facilitate usage of balance system workload because it would enhance handling the workload and improve overall system performance. The concept of balancing the workload would help distribute the workload among the entities that support processing the workload. Distributing the workload based on determination of the available entity among the entities would utilize the available entity for faster processing of the workload. Sending messages synchronously and asynchronously would support improving performance of the system by recovering information of the lost messages in the system (please see paragraphs 1130, 1153, 1729, 1734, 1754, 1790, 3370, 3405, 3652, 4115-4117, 4125, 4126, 1240, 755, 1001, 1012, 1013).

However, Schuster-3Com and Bowman-Amuah-Accenture do not specifically mention about managing a pool of message threads.

Ben-Shachar-Sun discloses the concept of **managing a pool of message threads** (usage of load balancing manager for balancing workloads among workers in a worker pool, col., 3,

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lines 32 – 49, col., 30, lines 5 – 8, with multi-threads handling messages, col., 29, lines 34 – 47, col., 8, lines 34 – 43).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Schuster-3Com, Bowman-Amuah-Accenture and Ben-Shachar-Sun in order to facilitate usage of managing a pool of message threads because it would enhance handling the messages by the entities utilizing multi-threads for improving the overall system performance. The concept of balancing the workload using the multi-threads would help distribute the workload among the threads supporting the entities for processing the workload (please see, col., 3, lines 32 – 49, col., 30, lines 5 – 8, col., 29, lines 34 – 47, col., 8, lines 34 – 43).

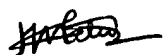
### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is (571) 272-3973. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Haresh Patel

July 24, 2006